Claims:

1. (withdrawn) A video encoding method of implementing interframe prediction between a frame and another frame, said video encoding method comprising: outputting a maximum delay time that can be made by backward prediction.

2. (withdrawn) A video encoding method comprising:

an input step of effecting input of a frame as a target for encoding;

an encoding step of encoding the frame by a predetermined method; and

a maximum delay time calculating step of calculating a maximum delay time of the frame from a display time of the frame, an encoding time, and a delay time that is incurred by backward prediction.

3. (currently amended) A video decoding method of implementing interframe prediction between a frame and another frame, said video decoding method comprising:

effecting input of a maximum delay time that can be made by backward prediction, and

wherein the maximum delay time is defined as a time difference between a decoding time of a frame without reversal of orders of decoding times and output times with respect to any other frame, and a decoded image output time correlated with said frame.

4. (original) A video decoding method comprising:

an input step of effecting input of image data containing encoded data of a frame encoded by a predetermined method, a decoding time of the frame, and a maximum delay time;

a decoding step of decoding the encoded data to generate a regenerated image; and

an image output time calculating step of calculating an output time for display of the frame, based on the decoding time and the maximum delay time.

5. (withdrawn) A video encoding apparatus for implementing interframe prediction between a frame and another frame, said video encoding apparatus being configured to:

output a maximum delay time that is incurred by backward prediction.

6. (withdrawn) The video encoding apparatus according to Claim 5, wherein said maximum delay time is defined as a time difference between an occurrence time of a frame to be subjected to backward interframe prediction, and an occurrence time of a temporally last subsequent frame that can be used as a reference frame in backward prediction.

7. (withdrawn) The video encoding apparatus according to Claim 5, wherein the maximum delay time is outputted as information to be applied to entire encoded data.

8. (withdrawn) The video encoding apparatus according to Claim 5, wherein the maximum delay time is outputted as information to be applied to each frame.

9. (withdrawn) The video encoding apparatus according to Claim 5, wherein the maximum delay time is optionally outputted as information to be applied to a frame for which the maximum delay time is transmitted and to each temporally subsequent frame after said frame.

10. (withdrawn) A video encoding apparatus comprising:

input means for effecting input of a frame as a target for encoding;

encoding means for encoding the frame by a predetermined method; and

maximum delay time calculating means for calculating a maximum delay time of the frame from a display time of the frame, an encoding time, and a delay time that is incurred by backward prediction.

11. (withdrawn) The video encoding apparatus according to Claim 10, wherein said maximum delay time is defined as a time difference between an occurrence time of a

frame to be subjected to backward interframe prediction, and an occurrence time of a temporally last subsequent frame that can be used as a reference frame in backward prediction.

12. (withdrawn) The video encoding apparatus according to Claim 10, wherein the maximum delay time is outputted as information to be applied to entire encoded data.

13. (withdrawn) The video encoding apparatus according to Claim 10, wherein the maximum delay time is outputted as information to be applied to each frame.

14. (withdrawn) The video encoding apparatus according to Claim 10, wherein the maximum delay time is optionally outputted as information to be applied to a frame for which the maximum delay time is transmitted and to each temporally subsequent frame after said frame.

15. (currently amended) A video decoding apparatus for implementing interframe prediction between a frame and another frame, said video decoding apparatus being configured to:

effect input of a maximum delay time that is incurred by backward prediction, and wherein the maximum delay time is defined as a time difference between a decoding time of a frame without reversal of orders of decoding times and output times with respect to any other frame, and a decoded image output time correlated with said frame.

16. (original) The video decoding apparatus according to Claim 15, wherein the maximum delay time is defined as a time difference between a decoding time of a frame without reversal of orders of decoding times and output times with respect to any other frame, and a decoded image output time correlated with said frame.

17. (original) The video decoding apparatus according to Claim 15, wherein the maximum delay time is entered as information to be applied to entire encoded data.

18. (original) The video decoding apparatus according to Claim 15, wherein the maximum delay time is entered as information to be applied to each frame.

19. (currently amended) ~~The~~ A video decoding apparatus ~~according to Claim 15~~ for implementing interframe prediction between a frame and another frame, said video decoding apparatus being configured to:

effect input of a maximum delay time that is incurred by backward prediction, and,

wherein the maximum delay time is optionally entered as information to be applied to a frame for which the maximum delay time is transmitted and to each temporally subsequent frame after said frame.

20. (original) A video decoding apparatus comprising:

input means for effecting input of image data containing encoded data of a frame encoded by a predetermined method, a decoding time of the frame, and a maximum delay time;

decoding means for decoding the encoded data to generate a regenerated image; and

image output time calculating means for calculating an output time for display of the frame, based on the decoding time and the maximum delay time.

21. (original) The video decoding apparatus according to Claim 20, wherein the maximum delay time is defined as a time difference between a decoding time of a frame without reversal of orders of decoding times and output times with respect to any other frame, and a decoded image output time correlated with said frame.

22. (original) The video decoding apparatus according to Claim 20, wherein the maximum delay time is entered as information to be applied to entire encoded data.

23. (original) The video decoding apparatus according to Claim 20, wherein the maximum delay time is entered as information to be applied to each frame.

24. (original) The video decoding apparatus according to Claim 20, wherein the maximum delay time is optionally entered as information to be applied to a frame for which the maximum delay time is transmitted and to each temporally subsequent frame after said frame.

25. (withdrawn) A video encoding program for letting a computer to execute video encoding of implementing interframe prediction between a frame and another frame, said video encoding program letting the computer to execute:

a process of outputting a maximum delay time that is incurred by backward prediction.

26. (withdrawn) A video encoding program for letting a computer to execute:

an input process of effecting input of a frame as a target for encoding;

an encoding process of encoding the frame by a predetermined method; and

a maximum delay time calculating process of calculating a maximum delay time of the frame from a display time of the frame, an encoding time, and a delay time that is incurred by backward prediction.

27. (currently amended) A computer readable medium encoded with computer-executable instructions for performing a vide decoding method of ~~video decoding program for letting a computer to execute video decoding of~~ implementing interframe prediction between a frame and another frame, said video decoding method ~~program letting the computer to execute~~comprising:

~~a process of~~ effecting input of a maximum delay time that can be made by backward prediction,

wherein the maximum delay time is defined as a time difference between a decoding time of a frame without reversal of orders of decoding times and output times with respect to any other frame, and a decoded image output time correlated with said frame.

28. (currently amended) A computer readable medium encoded with computer-executable instructions for performing a video decoding method comprising~~video decoding program for letting a computer to execute~~:

an input ~~process~~ step of effecting input of image data containing encoded data of a frame encoded by a predetermined method, a decoding time of the frame, and a maximum delay time;

a decoding ~~process~~ step of decoding the encoded data to generate a regenerated image; and

an image output time calculating ~~process~~ step of calculating an output time for display of the frame, based on the decoding time and the maximum delay time.

29. (new) A decoding apparatus for decoding encoded pictures and outputting the decoded pictures, comprising:

at least one coded picture buffer in which the encoded pictures are storable, wherein each of the encoded picture is associated with decoding timing information indicative of a delay time to be held for decoding and output delay information indicative of a delay time to be held for output;

a decoder configured to perform an inter prediction operation on each of the encoded pictures at a timing in accordance with the decoding timing information;

at least one decoded picture buffer in which the decoded pictures are storable; and

an output controller configured to output each of the decoded pictures from the at least one decoded picture buffer at a timing determined based on the decoding timing information and the output delay information.

30. (new) A decoding apparatus according to claim 29, wherein the decoding timing information is indicative of a delay time for each of the encoded pictures to wait before being removed from the at least one coded picture buffer.

31. (new) A decoding apparatus according to claim 29, wherein the decoding timing information is indicative of a decoding time of a respective encoded picture.

32. (new) A decoding apparatus according to claim 29, wherein the output delay information is indicative of a delay time for each of the decoded pictures to wait before being outputted from the at least one decoded picture buffer.

33. (new) A decoding apparatus according to claim 29, wherein the output delay information is indicative of a maximum delay time.

34. (new) A method for decoding encoded pictures and outputting the decoded pictures, comprising:

storing the encoded pictures in at least one coded buffer, wherein each of the encoded picture is associated with decoding timing information indicative of a delay time to be held for decoding and output delay information is indicative of a delay time to be held for output;

performing an inter prediction operation on each of the encoded pictures at a timing in accordance with the decoding timing information;

storing the decoded pictures are storable in at least one decoded picture buffer; and

outputting each of the decoded pictures from the at least one decoded picture buffer at a timing determined based on the decoding timing information and the output delay information.

35. (new) A method according to claim 34, wherein the decoding timing information is indicative of a delay time for each of the encoded pictures to wait before being removed from the at least one coded picture buffer.

36. (new) A method according to claim 34, wherein the decoding timing information is indicative of a decoding time of a respective encoded picture.

37. (new) A method according to claim 34, wherein the output delay information is indicative of a delay time for each of the decoded pictures to wait before being outputted from the at least one decoded picture buffer.

38. (new) A method of according to claim 34, wherein the output delay information is indicative of a maximum delay time.